**Student Worksheet: The physics behind burbling water**

**Directions**: Answer the following questions as directed by your teacher.

**Familiar sounds**

1. What do you think of when you hear water burbling? How does it make you feel?

2. Many commercial products, such as fountains and sound machines, incorporate the sounds produced from pouring or running water. What do think is the purpose of such products?

3. How could you create your own device to produce these water sounds? What would you have to investigate before you began developing a device?

**Making noise with water**

With your group, using the materials provided, try to make the loudest sound you can by pouring water from one receptacle into another. Try manipulating as many variables as you can. Keep track of how loud you perceive the sounds to be or use an app for measuring sound volume. Once you’ve found the loudest sound you can make, take a video of your demonstration. Then, still pouring water from one receptacle to another, try to make the quietest sound you can. Once you’ve found the quietest sound, take a video of your demonstration.

1. What variables did you manipulate as a part of your water experiments? List them.

2. How did you manipulate the variables to make the loudest sound? How about the quietest sound?

3. Watch the videos of your demonstrations. How did the streams of water differ in the two videos? Explain the differences you observe.

**The science of burbling water**

1. Read the *Science News* article “[Here’s the science behind the burbling sound of water being poured](https://www.sciencenews.org/article/physics-sound-water-poured).” What did the scientists find makes the loudest sounds? Do the scientists’ findings agree with yours?

2. Explain where the sound you hear when pouring water comes from.

3. If you could perform the experiment again, are there any variables you would change to make a louder or quieter sound? Explain.